



DON MYERS

OHIO VALLEY AMIGA USERS' GROUP

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NEXT MEETING: FEB. 23rd  
Rm 502 RIEVESCHL HALL,  
UC || BEGINNER'S at 6:30

# The President's Prattle

Ed Hoffmann

One of the good effects of a new hardware standard is the release of new products for this standard, and a lowering of the price of products that do not conform to that standard. Witness the new AGA Amigas. With this new standard, there have been several new releases that conform to this standard: DeluxePaint IV AGA, ProPage 4.0, a 32 bit RAM/FPU board for the A1200, Brilliance, ImageFX, Art Dept Professional (retroactively), Zool (the first AGA game), with many more planned and on the way. The new standard and increased competition raises the bar for Amiga software, while providing a price reduction on older software versions that do not comply with the standard.

Speaking of new releases, the Amiga horizons hold many exciting products: a vastly improved version of Real 3D that may redefine desktop 3D computer graphics; Helm, a multimedia authoring system; Visionary, a morphing and image effects package from Impulse; several low cost accelerators for the A500 and A2000; VistaPro 3.0; Imagine 3.0; and version 3.0 of the Toaster. Commodore is also about to release a SCSI-II controller for the A4000 that provides the highest transfer rates of any SCSI controller on any platform, and a high performance 16 bit Digital Signal Processing (DSP) card for the A4000 that will not only provide high fidelity sound, but applications such as high-speed modems and voice recognition. I also expect many new games that take advantage of AGA to appear, especially with the popularity of the A1200.

Related Amiga news includes the showing of Babylon 5 on television, demonstrating Amiga-generated graphics at their height, and a segment on The Computer Chronicles that showcased OpalVision and Aladdin 4D, showing the artistic virtues of the Amiga. Rumors also abound that large portions of the Commodore marketing department have been fired, with the engineering department fully intact. Maybe they really have gotten the message.

The OVAUG demo disk should be ready by the next meeting. Based on size and system constraints, little animation will fit on the disk, so mostly stills and music will be showcased. There is no reason more demo disks can't be made, although I will have little time to put into one, so other group members will have to pick up the ball.

Don't forget that nominations for OVAUG officer positions will be made at this month's OVAUG meeting. If you are considering running, get yourself nominated, or be prepared to nominate a worthy candidate. The elections will be during the March meeting, with ballots available in the next newsletter.

# TRUMAN TOLAND

by Marie Toland

Born in Newark, New Jersey many years ago, Truman was slotted into a fine arts career from the beginning. A seer told his mother that she saw him 'surrounded by paper.' He attended the usual grammar schools in Newark, but when it came to high school, he attended a special school devoted to the arts, a forerunner of Cincinnati's School for the Creative and Performing Arts. (Sarah Vaughn was a fellow classmate.) A summer job took him to upstate New York to work in the Terrytoon studios where he laboriously painted (wearing cotton gloves) the hundreds and hundreds of cels necessary in those days to make an animated cartoon.

After graduation, he was accepted at Yale University (at the age of 16) as an advanced student in the Arts School and graduated in three and a half years with a BFA degree.

World War II was then in progress and Truman eventually served in the medics as an instructor in medical techniques at Fitzsimons General Hospital in Denver.

After the war, he tried to make a living painting portraits but eventually landed at the brewers, P. Ballantine & Sons, in Newark as an assistant art director. Here he met Marie, his wife of 44 years. He progressed up the ladder at Ballantine for the next twenty-four-plus years in sales and advertising.

An offer from a sign company in Allen County, Ohio proved too good to turn down, thence the move from New Jersey. After renting for a short while, Truman and Marie bought a farm on which the house had burned down. Truman designed a new home, and utilizing some materials from the old house and barn, had it built. He called it his largest piece of sculpture.

The sign company transferred its main office to Kokomo, Indiana, and after living there for just over a year, the Tolands decided to cut out and move to Cincinnati. They bought an old house on a hill overlooking the downtown and Truman proceeded to rehab the building while they lived in it. Marie escaped to the University of Cincinnati College of Law where she was first exposed to the use of computers—an old IBM System 6 which was used by the Admissions Office. In the meantime, younger son Troy bought a 'Trash 80' from Radio Shack and the Tolands were launched into the computer age.

Truman's first computer was a Commodore 64 with a daisy-wheel printer. He has progressed through the Amiga 1000 and is now using the 2000. Marie has a 500 in the kitchen.

A far cry from the Terrytoon days, Truman is now making animated cartoons the fun way and totally enjoying the Amiga. He uses it also as a tool when painting portraits in oil.

Troy now has Truman's old 1000, while older son, Robert, has a new 1200 at his home in Connecticut. Daughter, Toni, is Chairman of the Visual Communications Department at Syracuse University where, sorry to say, they use the unmentionable computer system.

Truman started sailing in the 30s, skiing in the 40s, and scuba diving in the 80s.

*The Editor is delighted to publish this biography submitted by Marie!*

## Minutes of the January 26, 1993 O.V.A.U.G. Meeting

The meeting was called to order at about 8:15 pm by Ed Hoffman. The attendance was about 40 people.

### New Members

The following members have joined OVAUG in January:

*Dan Denny and Gary Usleaman.*

*Welcome to OVAUG!*

### OFFICER REPORTS

**-VICE PRESIDENT (Dwight Blubaugh)** No report.

**-SECRETARY (Troy Cooksey)** As of this meeting we have 151 paid members. Membership dues are \$15 for a single membership and \$20 for a family membership. (If you need to pay dues or wish to join, see me at the meetings or call 961-6354 for more information). If you have something for sale or trade, then please give me a written description of the item along with your name and phone number, or you can send it to the club's post office box. Your ad will appear in three issues of the newsletter or, more or less issues, if you let me know that you need more time or that the item has sold. Also note that on your newsletter, your expiration date will be highlighted when your membership is about to expire.

**-LIBRARIAN (Scott Bennett)** The Fred Fish library is currently up to FF800. The CD ROM is up to FF700. (Note: a variety of books and video tapes are now available for borrowing by club members in good standing. Scott has sign up sheets for those interested).

**-TREASURER (George Gibeau)** The treasury balance is currently \$429.26.

**-TECHNICAL ADVISOR (Tracy Schuhwerk)** A new German device, the Omni board, is now available. It allows you to use a VGA card with your Amiga. Commodore is offering new prices on several different models including the 1200 (\$599-\$849) and the 4000 (\$2700). The 2000 series computers have been discontinued.

**-NEWSLETTER (Jeff Johnson)** Jeff thanked all of the contributors to last month's issue of the newsletter. Also Jeff reported that there were more good articles about the Amiga in last month's issues of Computer Graphics World and Cinefantastic magazines. Jeff requests that if you have anything, articles, tips, bios on interesting members, etc, then please send them in. Note it does not have to be a full blown article. Anyone published in the newsletter will receive one free Fred Fish copy. Submissions can be made to the club P.O. box, to the club BBS, or to Jeff at the meetings. Also if you would like to see an article on a particular topic then let Jeff know and he will try to find someone to write on it.

**-BBS ADVISOR (George Gibeau)** George reported that the new 14400 baud modem for the BBS is now on line. Also we are still working on joining FidoNet. The club's BBS phone number is 241-8817.

### SIG REPORTS

**-BEGINNER'S SIG (Ed Hoffman)** Ed demoed digital sound and sampling at the January meeting. Ed welcomes any suggestions for meeting topics. Meetings are held in Room 502 Rieveschl Hall at 6:30 pm prior to the monthly OVAUG meeting.

**-C SIG (Mark Peters)** Next month the group will be looking at the beta version of Display Maker. C SIG discussions are taking place on the OVAUG BBS and monthly meetings are held at Mark's house, 3027 Eden Ave., on the third Thursday of every month. Call Mark at 961-6925 for more information.

**-MULTI MEDIA SIG (Dan Sternklar)** At the next meeting the group will be looking at some new Lightwave tutorial tapes. Meetings are held at Dan's house, 3325 Bishop St. in Clifton, on the 1st Tuesday of every month (call Dan @ 281-3278 for more info).

**-GRAPHICS SIG (Bob Leibold)** The next meeting has not been announced. This SIG is in conjunction with Cincinnati Community Video. It will focus on developing computer graphics and video which will be aired on Warner Cable Public Access. Training and access to CCV equipment will be provided for SIG participants. Contact Bob Leibold at 651-4171 for more details.

**-AREXX SIG (Richard Hertzberg)** This is a new SIG which will begin on the club BBS in the next couple of months.

## OLD BUSINESS

-People who owe for BBS downloads need to get their money to the club as soon as possible.

-Truman Toland is currently making a documentary on OVAUG and the CCV Graphics SIG. Truman requests that anyone with work they want to show should let him know so he can put it in the video. Contact Truman at 381-3659.

## NEW BUSINESS & DISCUSSION

-A vote was taken as to whether the club should subscribe to the Fred Fish library (\$200 per year). The vote was almost unanimous for subscribing.

-Amiga Vision Professional is now available at a retail price of \$399. Upgrade is available for \$105.25.

-More Amiga controlled Virtuality booths have been spotted at the Forest Fair Mall.

-On the Amiga periodical front, Info magazine will soon be published again. Also a new developer's periodical should hit the shelves very soon.

-Ed Hoffman reported that he is putting together a demo disk to be run on Amigas around the city to demonstrate the machine's capabilities. Ed had noticed that most Amigas found in retail stores were setting idle and felt the machine was not getting fair representation. Ed suggests that if we can provide these stores with a good demo disk, then we should be able to generate some new interest in the machine. If you have any interesting graphics, animations, music, sound samples, or anything that shows the capabilities of the Amiga, but does not take up a lot of memory, then get it to Ed.

## DEMONSTRATIONS

-Troy Cooksey and Ed Hoffman showed their completed Downlite animation. The piece shows a goose (the Downlite logo character) flying around a spinning globe, landing, and morphing into the logo. The animation was created with Journeyman/Playmation, Imagine, Morph Plus, AD Pro, and a host of others.

-Troy also showed some more pictures of the set from their next project, the Plutonium Card.

-Ed also showed two new morphing animations he had done including the Digipaint model transitioning into King Tut and Calvin (of Calvin and Hobbes fame) deparicizing into swirling spheres like the effect seen in the film Lawnmower Man.

-Cindy Molitor demoed the game Pinball Fantasies. The game includes three disks, one program disk and two table disks. The tables include Party Land, Speed Devil, Billion Dollar Game Show, and Stones and Bones. The game also has features such as matching and three paddles.

-Phil Horney and Drew Vogel demoed some musical tracks created for an up coming animation/music piece based on William Gibson's cyberpunk novel, Count Zero. The finished creation will be a totally computer generated piece, several minutes long.

## \$\$\$ FOR SALE OR TRADE \$\$\$

-Complete computer package including; Amiga 500 (2.0 & 1.3 chips on switch), 50 meg hard drive w/ SCSI controller, 1084S monitor, external 3 1/2 " drive, Vorec-voice recognition device, Star NX1000 color printer, 2400 baud Zoom modem, power strip, teak disk case, MicroSpeed track ball, and software...\$950 or call for individual piece price...offered by Brett Birdsall (948-8530).

## QUESTIONS???...Then contact one of your OVAUG officers!

-President.....Ed Hoffman.....521-3424

-Vice-president.....Dwight Blubaugh.....???-????

-Secretary.....Troy Cooksey.....661-0908

-Treasurer.....George Gibeau.....721-1214

-Newsletter Editor.....Jeff Johnson.....651-1199

-Technical Advisor.....Tracy Schuhwerk.....331-0419

-Club Librarian.....Scott Bennett.....371-2603

-BBS Officer.....George Gibeau.....721-1214

-BBS Phone Number (8N1).....241-8817

REF-ROA

{ALGERIA}

SHRAPNEL

BUSORAMA

CARRIAGES

CHARLIE CHAN

COLISEO NORMAL

FZLGLS

rabbit ears

GRAPHIC -LIGHT

HOLTZSCHUE

GEESHOLFOLD

NICHOLS

KOCH-ROMA

LITHOS **REVUE**

LIVIA LOMBARD O  
POSTCRYPT

-luxembourg-

*HERE ARE EVEN MORE OF DANDYKE'S CG FONTS --  
AVAILABLE ON THE BBS OR CLUB DISKS AT EXPERT*

**MARKER FELT**

SQUIRE RECENTMAN

MIRA NAUERT

-NOUVEAU-



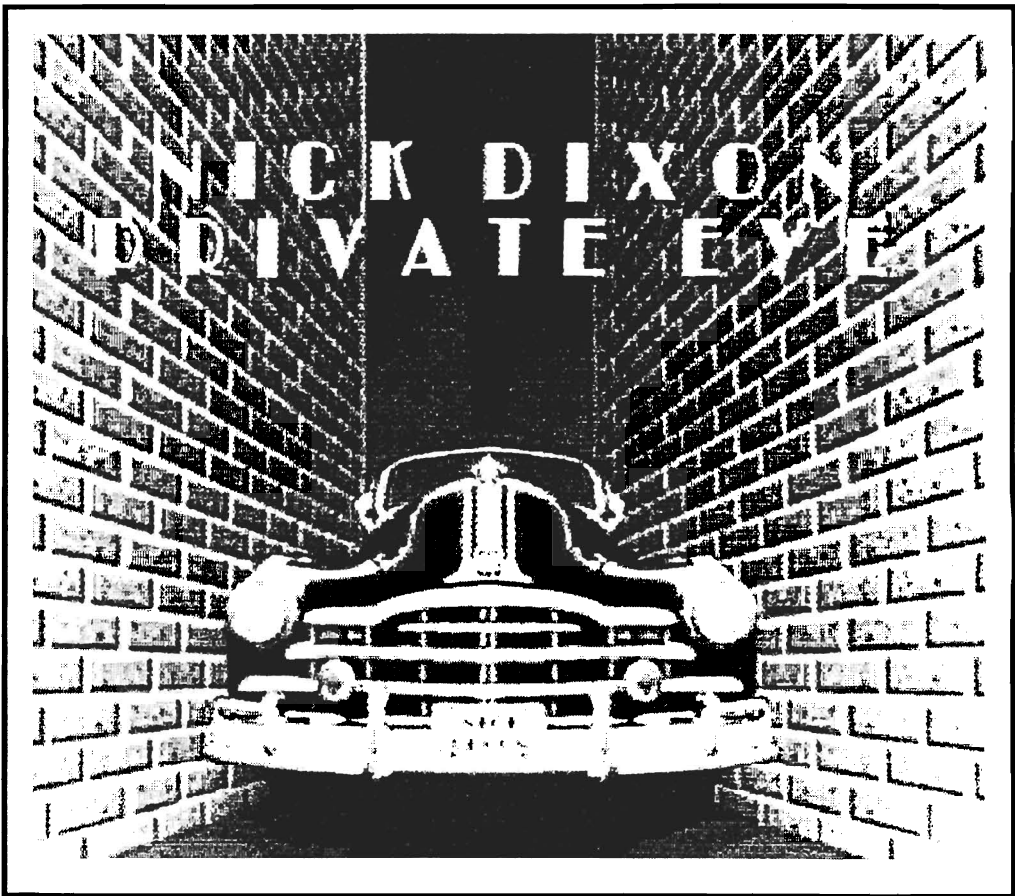
These images were created using DCTV and Deluxepaint 4.1, as well as Vistapro 2.0. DCTV does a wonderful job with greyscales. Since it is a blurry, composite video device I have discovered that greyscale images can be converted to 16 shades of grey in hires and taken into Deluxepaint. Here animations can be made and then converted frame by frame back to DCTV. When the image is filtered to make it more "TV friendly" it gets blurred back into thousands of shades of grey again. I converted these images to 256 color greyscales and archived them. For example, the alleyway picture features a car digitized in DCTV, alleyway walls drawn





in Dpaint's perspective mode, clouds created in Vistapro and then animated in DCTV to make lightning, etc. "Nick Dixon Private Eye" is a detective move trailer for a 1940's type detective move that never existed. I'm using DCTV for backgrounds and animations, as well as Deluxepaint IV for animations like the scratchy film look which I will overlay on everything. If you liked these pictures you should see the anims, with lightning filled alleyways and moving searchlights! This short subject will soon be running on Warner Cable public access. I may even win an award for it (again!).  
Enjoy!

**Donald Myers**



# AREXX Programming: A Utility to Batch Rename Files

by Ed Hoffmann

While working on an animation recently, I found it necessary to rename a series of files with slightly different names. Unfortunately, the only way to do this was to rename them individually, all 300+ of them. Although Directory Opus helped, it was not a fun job. I vowed to write a script to do this, with a flexible input and output file name format. I ended up using AREXX due to its strong and flexible string handling abilities. Although it won't win any speed awards, it does just the job I want it to. Below is the script, with many comments inserted to understand what the script is doing. Although it is available on the club BBS, the listing below is intended to teach the reader a little about AREXX. This utility assumes that all the files to be renamed are stored in one subdirectory with no other files in that subdirectory, and the file name format is < prefix> < filenumber> < suffix>, with an optional prefix and suffix and with sequential or non-sequential file numbers.

```
/* AREXX script to rename files for animation processing.      Ed Hoffmann January 18, 1993      */
/* Notice all scripts must start with a comment; comments are enclosed by "/* < comment> */".      */

NL = '0a'X                      /* Define a new line (NL) as the ASCII code expressed in HEX. */
File = "                        /* Initialize three stem variables to NULL... #1, */
FileNo = "                      /* #2, */
Used = "                        /* and #3. */

/* Ask the user for the source directory for the input ("source") files and set up filelist in T:      */

say NL"Enter directory containing only source files (default=RAM:):"
parse pull Dir                  /* Get source directory name from user. */
if Dir = " then Dir = 'RAM:'    /* Set default source directory to RAM:. */
address command 'list > T:FileList ' Dir ' files LFORMAT="%S"'
/* The above line spawns an AmigaDOS command to generate a list of files in the source directory and puts
...the resultant list of files in the T: directory, usually in RAM:. */

/* Prompt user to determine if source files contain a suffix. */

say NL"*** Filename format is < Prefix> < filenumber> < Suffix> ***"NL
say NL"Do source files contain a suffix (Y/n)?"
pull SourceSuffix              /* Get the suffix for the source filenames. */

/* Start loop to parse input filename and extract file number. */
if ~open('FileList', 'T:FileList') then do /* Open file for input and quit if file not found. */
say "*** Input file T:FileList not found ***"
return
end

i = 0

do while ~EOF('FileList')      /* Continue reading filenames until end of file. */
i = i + 1                      /* Increment counter for filenumber. */
File.i = compress(readln('FileList')) /* Read filename from list and remove blanks (compress). */
if ~EOF('FileList') then do    /* Start loop to extract file # until end of file (EOF). */
if (SourceSuffix = 'N') then do /* Start loop if there is no suffix on source file names. */
FileNo.i = " /* Reset file number to NULL. */
do j = length(File.i) to 1 by -1 /* Loop to read from end of file name string. */
do k = 1 to (length(File.i)-j+1) /* Loop to set string length to be read from filename. */
if datatype(substr(File.i,j,k)) = 'NUM' then do /* Check for filenumber (numeric). */
if substr(File.i,j+k-1,1) = '.' then /* Check for '.' */
FileNo.i = substr(File.i,j,k-1) /* ... and strip since */
else FileNo.i = substr(File.i,j,k) /* ... it's interpreted as numeric. */
end
end
end
end
end
```

```

else do                                /* If no suffix in source files then */
    SuffixFlag = 0                     /* ...reset suffix flag and then */
    FileNo.i = ""                      /* ...reset file # to NULL. */
    do j = length(File.i) to 1 by -1  /* Loop to read from the end of the filename string. */
        if SuffixFlag = 1 then        /* If all of the filename suffix is read ... */
            do k = 1 to (length(File.i)-j+1) /* Loop for string length. */
                if datatype(substr(File.i,j,k)) = 'NUM' then do /* Check for filename number (numeric). */
                    if substr(File.i,j+k-1,1) = '.' then /* Check for '.' */
                        FileNo.i = substr(File.i,j,k-1) /* ...and strip as above. */
                    else FileNo.i = substr(File.i,j,k)
                end
            end
        end
    else
        if substr(File.i,j,1) = '.' then SuffixFlag = 1 /* Set flag if a '.' is found, */
        else SuffixFlag = 0 /* ...indicating the end of the */
    end /* ...source filename suffix. */
end
end
end
NumFiles = i - 1 /* Set the number of files found in file list (note that AREXX will */
/* ...increment the counter in doing test, so it must be decremented). */
say 'Input new prefix' /* Get new prefix and suffix from user. */
parse pull Pre /* Note that both or either are optional. */
say 'Input new suffix'
parse pull Suf
if Suf ~= "" then Suf = '.'Suf /* Put the '.' on the beginning of the suffix. */
say 'Input new initial filename (CR to retain original numbers)'
pull Num

if Num = "" then /* Default to old numbers if no new initial filenames given. */
    do i = 1 to NumFiles /* Loop for renaming the files. */
        NewNum = FileNo.i+0 /* This is a trick to force 'NewNum' as numeric. */
        call LeadingZeros NewNum /* Figure out the number of leading zeros by a call to procedure. */
        Zeros = RESULT /* Set zeros to results from procedure call. */
        address command 'rename 'Dir||File.i' as 'Dir||Pre||Zeros||NewNum||Suf
    end /* The above AmigaDOS command renames the files with the new names. */
else do /* If new initial file numbers are given: */
    FF = 1 /* Set "first file" flag to 1, indicating the first file in the */
        /* ...list is the one with lowest filename. Also, reset flag. */
    Used. = 0 /* ...indicating file is not yet taken from the list (used). */
    do i = 1 to NumFiles /* Loop for renaming files. */
        NewNum = Num+i-1 /* Set new file number. */
        if i > 1 then do /* Test to find first "unused" file number in list. */
            do ii = 1 to NumFiles /* Loop to check for first used file. */
                if Used.ii = 0 then leave /* Exit loop when first unused file is found in file list. */
            end
            FF = ii /* Set "first file" flag to first unused file found in file list. */
        end
        do j = 1 to NumFiles /* Loop to find lowest file number left in file list. */
            if Used.j = 0 then
                if FileNo.j < FileNo.FF then FF = j /* If this file number is lowest, then set flag. */
            end
            Used.FF = 1 /* Set "used" flag for this file. */
            call LeadingZeros NewNum /* Find appropriate number of leading zeros for this */
            Zeros = RESULT /* ...filename, padding it out to 4 places. */
            address command 'rename 'Dir||File.FF' as 'Dir||Pre||Zeros||NewNum||Suf
        end /* The above AmigaDOS command renames the files with new names. */
    end
end
close ('FileList') /* Close file. Although not necessary, it's good practice. */
return

```

LeadingZeros: Procedure

```
arg i /* ...to calculate appropriate number of leading zeros based on size of the argument 'i'. */
if i < 10 then Zeros = '000'
else
if i < 100 then Zeros = '00'
else
if i < 1000 then Zeros = '0'
else Zeros = ''
return Zeros
```

EDITOR'S NOTE: This file is available on the Club BBS in Ed's "PRES293.LHA" file

## THE COMPUTER DISPLAY ENIGMA

by Jeff Johnson

Yet another area of mystification surrounding computers has arisen, the video display. Disregarding the computer side of the question, there seems to be a lack of general knowledge of what you're lookin' at.

Here we go again with jargon. NTSC, VGA, RGB DIGITAL, RGB ANALOG, COMPOSITE, RF, S-VIDEO, SECAM, PAL, MULTI-SYNC, INTERLACE FLICKER, HIGH PERSISTENCE, VECTORSCOPE, Y/C, TBC, CNN, and so on.

These are all electronic terms involved with the process of presenting a video display to your squinty eyes. Yes, such acronyms as VGA and HAM stem the computer technology. We will however focus on the history of video, both TV and computer.

The word television of course comes from the Latin for "sight over a distance". The earliest TV experimentation dates to the '20s and involved spinning wheels full of spirally placed holes, phototubes and neon bulbs. The signals could be sent over radio. The resulting image was not of commercial value, but it was a starting point. Useful television awaited imaging vacuum tubes developed in the '30s, in part for radar.

My dad first saw television at the 1939 World's Fair in New York. He said many in the crowd thought it was done with mirrors. Can you imagine seeing something of that magnitude, absolutely new, for the first time? For the author it was the moonlanding in 1969 or watching, in person, a Saturn5, -Apollo 16-, leave the earth bound for another heavenly orb.

But, back to VGA and sync rates... The end result of TV or computer video is a glass plane in front of our eyes with phosphors glowing through. (Even the Guru) The screen can be composed of an uninterrupted layer of phosphors which glow when struck from behind by a beam of electrons. The beam is thin and moves across quickly and down slowly. The result is the familiar RASTER. The rate the beam is drawn across the screen is the HORIZONTAL SYNC RATE. The rate the beam is drawn down the screen is the VERTICAL SYNC RATE. Turning the beam on and off while it is being scanned creates the picture. On and off completely is DIGITAL VIDEO, and on and off to any degree at all is ANALOG VIDEO. We are speaking of monochrome video. If the phosphors are white we have B+W.

The original NTSC television standard was formulated in the '30s and became a commercial reality after WWII. It was based on the best that electronics could do at the time. The horizontal sync rate is 15.75 thousand times per second, and the vertical sync rate is 60 times per second. At 60 times per second the picture is renewed (refreshed) often enough that the eye cannot see each refresh. There is virtually no flicker. The phosphors light up often enough and fade slowly enough that they seem lighted constantly. However, the technology of the day could not keep up with doing the whole screen all at once. There was limited VIDEO BANDWIDTH. That is how fast the beam can be turned on and off. So only half of the screen is scanned, every other line. Then the other half of the screen is scanned in

between. This is called INTERLACE. Therefore the complete screen is scanned only 30 times per second. To eliminate interlace the entire screen must be scanned 60 times per second with the video modulation coming in twice as fast. Now we are talking VGA type video. The Amiga does NTSC video which is why it is the best platform for desktop video, but it flickers.

Now we will consider COLOR. In 1955, approximately, color TV was introduced. The author first saw color TV that year, the program was "Howdy Doo-dy". Color was added to the NTSC standard in a compatible manner. At the time a big controversy involved the NBC compatible method and the CBS incompatible method.

The CBS system incorporated a spinning filter wheel in front of a monochrome CRT. It was sort of like DigiView in reverse. As the wheel spun, the CRT displayed the appropriate image for the color of filter currently in view. It was an unwieldy system, but produced a picture superior to that of the NBC version. Of course, the NBC standard won out, but it was by no means the best and we are still suffering the consequences. Compatibility was important then as it is now. Just think of MS-DOS or VHS and the reasons they are dominant. Each is the poorest of their respective technologies, but they dominate merely due to their dominance.

The NBC system that we know to this day piggy-backs the color on top of the monochrome image. Either a color receiver or B/W will work. The monochrome, also called the "Y" signal, has the color, "C", signal mixed in with it which degrades the fine detail of the picture, but it is compatible. A bit more detail on this appears later in this article. Additionally, the picture tube (CRT) has its screen composed of small phosphor dots grouped in triads of the three primary colors (the earliest version) and now more commonly in a square or stripe layout. This results in a coarser display, but it is much simpler than the spinning wheel. So, in the interests of compatibility and simplicity, COMPOSITE NTSC is the standard.

Now is the time to consider the basics of displaying a color image on a Cathode Ray Tube (CRT). There are three primary colors that make up additive color - RED, GREEN, and BLUE. The phosphor triads on the surface of the screen are red, green, and blue. Look closely with a magnifying lens. There they are! All on makes white, all off makes black, red and green makes yellow. Blue and red make magenta. Blue and green make cyan. You may recognize these combinations as producing the three subtractive color primaries, but that is another subject. This is DIGITAL RGB VIDEO, the most basic form of video. If the brightness of the three can be varied to any level between all on and all off, then it is ANALOG RGB VIDEO. The Amiga uses analog RGB video.

Next, scan rates are to be considered. The electron beam or beams are swept across the surface of the screen at a certain rate to create the raster previously mentioned. The rate of scanning determines the nature of the video. The slowest is NTSC video at 15.75KHz horizontal, and just shy of 60Hz vertically. As previously mentioned, NTSC is interlaced. VGA is approximately twice as fast horizontally at ~31KHz with a non-interlaced vertical sweep. These sweep rates are different with the various types of display. Rather than trying to remember what each one is, leave it to a MULTI-SYNC monitor. They latch on to the prevailing sync rates and create the proper raster.

Consider that the beams must be modulated (turned brighter and dimmer) in exact synchronization with the sweep. An obvious explanation of the mysterious subject of resolution is that VERTICAL RESOLUTION is simply the number of horizontal scan lines, and HORIZONTAL RESOLUTION is how fast the beam can be turned on and off. Thus, horizontal resolution is analogous to VIDEO BANDWIDTH. The issue is complicated by how many physical phosphor dots are on the screen. This is the DOT PITCH spec, and any number .28 or lower is acceptable. Too coarse a dot pitch, and the maximum resolution cannot be realized.

Putting it all together, there are five signals which must be combined: red, green, blue, horizontal sync, and vertical sync. The sync signals are commonly mixed with one of the color signals. This results in RGB video. It can be NTSC, VGA, or another electronic spec such as PAL or SECAM which are TV specs used elsewhere in the world.

If the RGB signal is considered on the basis of color versus monochrome, it can be deduced that if all three signals vary together, that is the monochrome content and if they vary differently, that is the color content. As mentioned, the monochrome signal is called "Y" and the color is called "C". The derivation of the color signal is made by separately subtracting two of the components of the RGB from the Y, leaving the third determinable by the remainder. Don't worry about the derivation of the color signal except to note that it is created with less bandwidth than the Y signal. Most of the detail in a video image comes from the Y signal, with the C signal just filling in areas rather like the Sunday funnies. This is Y/C or S-VIDEO (split video).

The Y signal, combined with the sync signal, has the C signal overlaid at the upper end of the bandwidth. The trouble with this is that the fine detail is obscured by the color signal. A device called a comb filter can pull some of the detail out from between the beat artifacts of the signal. This is where the name "comb" comes from. Now we have COMPOSITE video, which is what comes out of the VIDEO jack of a VCR or your Amiga.

Add the FM modulated sound, the AM modulated composite video together and you have the RF (Radio Frequency) broadcast signal.

To recap: RED, GREEN, BLUE, HORIZONTAL SYNC, VERTICAL SYNC  
is combined into >> RGB (computer or TV)  
is combined into >> Y/C (or S-VIDEO)  
is combined into >> COMPOSITE VIDEO  
is modulated into >> RF broadcast signal

The sync signal becomes unsteady when recorded, so a TBC (Time Base Corrector) must be used to retime the sync. This is necessary for the Toaster. Signal quality of a composite signal is checked with a VECTORSCOPE to ensure color correctness.

All this to bring us Roseanne, Lucy, or Lemmings. It's a modern world!

## EDITORS END

New member John Dunathon, of 7715 Westwind, Cincinnati, Ohio, 45242, is looking for a member living in Montgomery to share Amiga experiences. A neighbor in that neck of the woods can call John at 984-4819.

>> Jeff Hoffman is hoping to sell his A500. It features the AdSpeed 14 MHz accelerator and has 1 meg of RAM. Jeff is hoping for \$300 for his machine. Remember that it has the accelerator.

At the January meeting, Chris Lynch mentioned a number of magazines of interest and edification to OVAUG members. He uploaded the list to the BBS.

Here are those magazines I mentioned at the last meeting -  
the first: Videography  
Creative Data Center  
650 S. Clark St.  
Chicago IL 60605-0060  
Second: New Media  
P.O. Box 1771  
Riverton, NJ 08077-7331  
Third: Video Systems  
Reader Service  
P.O. Box 12946  
Shawnee Mission, Ks 66282-2946

Fourth: Television Broadcast  
Creative Data Center  
650 S. Clark  
Chicago, IL 60605-1702  
And Finally: TV Technology  
P.O. Box 1214  
Falls Church VA 22041-9808

Keep in mind most of these magazines are geared for professionals  
I'm not sure if you have to be one to get the magazine or not but  
all of the above are free subscription. And the most interesting one is  
New Media It covers High end work stations and generally has an article on  
the Amiga. Well there they are!!!!

Chris Lynch

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The OVAUG Grand Gurus Brick Eksten and Scott Bennett traveled to the recent Amiga DEVCON. Here is an edited report from Brick. He could tell us more, but then he would have to kill us!

Hi, I'm back. Devcon was incredible. 400+ attendees. I haven't seen so much excitement in the Amiga community since '85. Saw lots of cool stuff, and once again I am happy and unhappy to say,

'Under full Non-Disclosure'. Things I can mention:

1. As you have all heard, CBM has a SCSI controller for the 4000. The official name is A4091. This thing is a screamer. It is full Fast, Wide SCSI II protocol, and based on NCR's latest SCSI chip. Being Fast and Wide SCSI puts the bandwidth at 40 megabytes/sec burst and 20 megabytes/sec sustained. It works with all SCSI drives. So many people yelled at CBM for putting IDE on the 4000 that they built was is probably the fastest SCSI controller on any platform!

2. A4000/A3000 deinterlacer. This is a deinterlacer card much like the Flicker Fixer, except that it works in all the AGA modes and has an extra meg of ram to use as a 24 bit frame buffer. Very Cool!

Things from other companies...

1. Village-Tronic (very cool dudes from Germany) announced the Picasso display board. This board should be around 700.00 US and supports 256 colors (like the 4000) in resolutions up to 1024x1024. This board already has working RTG! (ReTargetable Graphics) Workbench running in 1024, it was very cool.

2. See above.. versions will be available for the A1000, A500, A1200, A2000, A3000, A4000!

3. Real 3D 2.0, all I can say is wow! wow! wow! I my quit programming become a professional artist again. Call me at home if you want to know more.

4. Did I mention real 3D?

See Ya.. Brick

Please keep in mind that OVAUG Club Officer nominations will be made at the February meeting on the 23rd. There is a great deal of work done to make OVAUG the professional, competent support group that it is. Those of us toiling in the trenches welcome the input and enthusiasm of the entire membership, not to mention fresh blood. So, who's NeXt (but that's another machine)!

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